Unmet Need for Adjunctive Dyslipidemia Therapy in Hypertriglyceridemia Management.

Ganda et al. *J Am Coll Cardiol*. 2018 Jul 17;72(3):330-343. doi: 10.1016/j.jacc.2018.04.061.

Summary by Dr. R. Preston Mason (Brigham & Women's Hospital):

While statins have had a major impact on reducing the burden of atherosclerotic disease, there is still substantial CV risk, especially in higher risk subjects such as those with type 2 diabetes mellitus (T2DM). An important contributor to this residual risk is elevated levels of triglycerides (TG). Unlike high-density lipoprotein cholesterol (HDL-C), genetic studies have provided evidence that elevated TG levels are associated with incident cardiovascular events. A lack of benefit for HDL-C directed therapy has also been demonstrated in randomized clinical trials (fibrates, niacin, and most cholesterol ester transferase protein inhibitors) among subjects with well controlled LDL-C levels using intensive statin therapy. Thus, current attention is directed to elevated TG and non-HDL-C levels as mediators of residual ASCVD risk. Omega-3 fatty acids safely and effectively lower TG levels. There is now emerging evidence that they have direct vascular benefits such as reducing plaque instability, inflammation and oxidative stress. Adequately powered clinical trials of sufficient duration are now underway to test the cardiovascular benefits of omega-3 fatty acids as well as novel fibrates. In particular, EPA-only formulations have been shown to reduce TGs, oxidized LDL and inflammation without raising LDL as compared with DHA-containing products. These ongoing outcomes trials will provide key insights into reducing residual CV risk.